



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,613	08/04/2000	Holly Hogrefe	4121.0116-07	6689

7590

07/30/2003

Finnegan Henderson Farabow Garrett & Dunner LLP
Stanford Research Park
700 Hansen Way
Palo Alto, CA 94304

EXAMINER

WILDER, CYNTHIA B

ART UNIT

PAPER NUMBER

1637

DATE MAILED: 07/30/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

BEST AVAILABLE COPY

Advisory ActionApplication No.
09/631,613Applicant(s)
Hogrefe, et al.Examiner
First LastArt Unit
1234

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED Jun 16, 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid the abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

THE PERIOD FOR REPLY [check only a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see NOTE below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE:

3. ☒ Applicant's reply has overcome the following rejection(s):
Applicant's reply has overcome the double patenting rejections of claims 40-44 and 68-74.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attachment to advisory action.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: 40-44, 69, 70, 72, and 74
- Claim(s) objected to: _____
- Claim(s) rejected: 71 and 73
- Claim(s) withdrawn from consideration: _____
8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☒ Other: The proposed amendment will be entered because they do not raise any new issues for consideration.

Art Unit: 1637

ATTACHMENT TO ADVISORY ACTION

1. Applicant's request for reconsideration in Paper 18 is acknowledged and has been entered. Claim 73 has been amended. Claims 40-44 and 69-74 are pending. All of the arguments have been thoroughly reviewed and considered but they are not found persuasive for the reasons that follow.

Previous Rejections

2. The prior art rejections under 35 U.S.C. 102(a) directed to claims 71 and 73 as being anticipated by Lasken et al. are maintained for the reasons discussed below. The double patenting rejection directed to claims 40-44 and 69-74 is withdrawn in view of Applicant's evidence establishing restriction of claim invention in the related applications.

Claim Rejections - 35 U.S.C. § 102

3. Once again, Claims 71 and 73 are rejected under 35 U.S.C. 102(a) as being anticipated by Lasken et al. (*JBC*, vol. 271, pp 17692-17696, 1996). Regarding claims 71 and 73, Lasken et al. teach a method of enhancing a nucleic acid polymerase reaction comprising performing the reaction in the presence of a dUTPase activity wherein the dUTPase activity comprises an archaeal dUTPase (page 17694, col. 2, lines 3-10 and page 17696, col. 1, lines 19--21 and 28-31). Therefore, Lasken et al. meet the limitations of claims 71 and 73 of the instant invention.

3. Applicant traverses the rejection on the following grounds: Applicant states that the Examiner has failed to explain how Lasken shows a dUTPase activity. Applicant states that the

Art Unit: 1637

Examiner has failed to explain how Lasken shows a dUTPase activity. Applicant states that in describing Lasken, the Examiner states that "dUTP is added to a polymerase reaction which resulted in a longer product". Applicant argues that the Examiner reiterates, "the reference only requires dUTP to be present in a polymerase reaction. Applicant states that Lasken does not suggest that the presence of dUTP indicates the presence of "a dUTPase activity". Applicant states that the examiner has not identified a dUTPase activity in Lasken. Applicant continues by stating that the portion of Lasken cited by the Examiner discusses a polymerization reaction in which dTTP was withheld and then replaced with dUTP. The addition of dUTP allowed polymerization to resume. Applicant states that the authors concluded that dUTP can be incorporated into a polymerized strand in a polymerization reaction lacking dTTP. Applicant states that as pointed out in the present specification, Lasken fails to mention "any dUTPase activity or the possible effect of dUTPase activity on polymerization reactions. Applicant states that indeed Lasken reports that the presence of dUTP in the reaction does not inhibit incorporation of normal dNTPs. Applicant states that Lasken et al. thus does not teach a method of enhancing a polymerase reaction comprising performing the reaction in the presence of dUTPase activity as recited in claim 71. Applicant states that claim 73 depends from claim 71 and this claim as well is not anticipated by Lasken. Applicant respectfully request the rejections to be withdrawn.

4. The arguments filed in Paper No. 18 have been thoroughly reviewed and considered but are not found persuasive for the reasons that follows: The courts have established that during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow (*In*

Art Unit: 1637

re Zeltz, 893 F. 2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed Cir, 1989). In this case the claims as broadly written do not teach a method of enhancing polymerase activity in the presence of a dUTPase activity. The claims as broadly written only requires dUTPase activity in the PCR reaction. There is no indication from the claim that any polymerase enhancement must occur. The reference of Lasken meets the limitation of the claimed invention because Lasken et al. teach wherein dUTP is added to a polymerase reaction which resulted in a longer product (page 17694, col. 2). In contrast to Applicant's arguments, the reference of Lasken et al. does show dUTPase activity in the teaching that the addition of dUTP in the polymerase reaction resulted in a longer product. With respect to Applicant's argument that the reference does not teach a method of enhancing a polymerase reaction, it noted that the claims as broadly written to not recite a method of enhancing a polymerase reaction. to reiterate the Final Action of Paper No. 14, the claims as written do not recite any method steps wherein a polymerase reaction is enhanced. There is no final process step which indicates that the addition of dUTPase activity results in the enhancement of a polymerase reaction. As stated earlier, the claims only recite a step of performing a polymerase reaction in the presence of dUTPase activity. Then what? The claims as written doesn't even require an effect of dUTPase activity in the reaction only that the dUTPase activity is present. Applicant has not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Accordingly, the rejection directed to claims 71 and 73 are maintained.

Art Unit: 1637

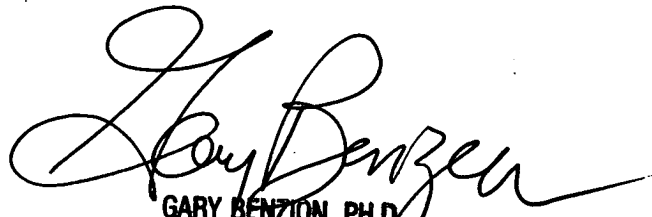
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cynthia Wilder whose telephone number is (703) 305-1680. The examiner can normally be reached on Monday through Thursday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached at (703) 308-1119. The official fax phone number for the Group is (703) 308-4242. The unofficial fax number is (703) 308-8724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group's Patent Analyst, Monica Graves at (703) 305-3002 or Group's receptionist at (703) 308-0196.

Cynthia B. Wilder, Ph.D.

July 15, 2003


GARY BENZION, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1800